

**MARINE MAMMAL ENTANGLEMENT WORKING GROUP
Protected Resources Division, National Marine Fisheries Service
Gloucester, Massachusetts
9:00 AM to 4:30 PM
March 10, 2004**

MEETING #4 SUMMARY

AGREEMENTS:

The Stellwagen Bank National Marine Sanctuary (SBNMS) Marine Mammal Entanglement Working Group (WG) reached agreement on the following points:

- The WG agreed that fishermen report and document any Navy bombing exercises in the SBNMS.
- In regard to gear marking, the WG agreed that whatever marking system is developed, it is essential that the Sanctuary be able to get the most information it can from the marking system (*e.g.*, tracing to a fishery).
- The WG agreed to put all of the Emerging Issues for each Action Plan into a separate document.
- Because there is no indication of sea turtle entanglements in the SBNMS, the WG agreed that sea turtle entanglement was not an issue at this time.

RECOMMENDATIONS:

The Marine Mammal Entanglement WG agreed that the following recommendations will be forwarded to Sanctuary Advisory Council:

- Because some SBNMS fishermen leave their anchor marked with a poly ball at a good fishing area for days, and because this can pose an entanglement risk, it was recommended that the Sanctuary require that anchoring systems be removed by fishermen when they are finished fishing for the day.
- The WG recommends that the Sanctuary ban aquaculture operations in the SBNMS due to entanglement risk.
- It is recommended that the Sanctuary secure a permanent vessel large enough to provide a regular presence within the Sanctuary. One important use of this vessel would be for the purpose of approaching whales to assess their condition (*e.g.*, indications of entanglement). Any applicable permits or authorizations must be obtained prior to this activity.
- It is recommended that the Sanctuary work with National Marine Fisheries Service (NMFS), Massachusetts Division of Marine Fisheries (MADMF), and other interested parties to develop a proposal to allow certified whale watching vessels to approach whales within the 500-yard exclusion zone for the purpose of assessing possible entanglement and individual identification (through photo-identification procedures).

- It is recommended that the Sanctuary increase and support current educational efforts alerting boaters to the need to be on the lookout for entangled whales.
- It is recommended that the Sanctuary increase educational efforts and partnerships to ensure that all mariners are aware of the need to report sightings of entangled animals and how such sightings should be reported. Possible efforts could include distribution of laminated placards stating the rules for reporting entangled whales to post on vessels and at the piers, and posting this information on the Sanctuary website and in the Sanctuary newsletter.
- It is recommended that the Sanctuary increase the time a Sanctuary vessel is on the water to aid in the stand-by of entangled whales.
- It is recommended that the Sanctuary improve or establish relationships with the Massachusetts Environmental Police or other groups, such as the Maine Marine Patrol, that could provide an on-water presence to supplement that of the Sanctuary.
- It is recommended that the Sanctuary facilitate a process by which research, state or federal vessels, or aircraft working in the SBNMS report their presence to the Center for Coastal Studies (CCS) and make themselves available for stand-by.
- It is recommended that the Sanctuary support a meeting of the CCS, commercial whale watch operators, and naturalists to provide training and informational materials for standing by an entangled whale.
- It is recommended that commercial whale watch boats standby an entangled whale for a minimum of 45 minutes if no other boats are in the vicinity to hand off the whale to as a means to ensure adequate documentation and a reduced search area for the network responder.
- It is recommended that the Sanctuary, along with CCS and NMFS, support incentive programs (such as certificates, photographs of vessels standing by entangled whales, postings on Sanctuary website, etc.) for vessels that stand by entangled whales.
- It is recommended that the Sanctuary encourage NMFS and NEFMC to develop ways to credit federally permitted vessels under the days-at-sea program for the actual fishing time they have lost in order to stand-by entangled whales. Under the current days-at-sea fisheries management system, fishermen would be economically penalized for standing-by entangled whales because this time would be deducted from the limited time they have been allotted to fish.
- It is recommended that the Sanctuary support an educational program for the fishing community to increase the number of disentanglement Level One trained commercial fishermen.
- It is recommended that the Sanctuary assist NMFS in allowing interested parties to view gear removed from whales entangled or disentangled in the proximity of the Sanctuary. This would also allow interested parties to provide comments for NMFS records regarding the possible type and origin of the gear viewed. This would facilitate public participation by individuals knowledgeable about commercial fishing gear without compromising ongoing investigations as to the type or origin of the gear or the potential evidentiary nature of the gear.

- It is recommended that the Sanctuary be instrumental in investigating a functional gear marking system in order to identify the part and type of gear in which whales are getting entangled.
- It is recommended that the Sanctuary investigate a means of developing a surface marking system to identify gear type and anchoring systems for the purpose of surface identification.
- It is recommended that the Sanctuary partner with CCS, NMFS, and other parties to support research and development of improved disentanglement technology.
- Anchoring systems have been implicated in at least three humpback whale entanglements. These whales were all sighted within the boundaries of the Sanctuary. The WG recommends that the Sanctuary investigate where these systems are being utilized and the WG recommends the Sanctuary require vessel anchoring systems be brought home when the vessel returns to port.
- Entanglement in aquaculture gear has been documented in at least one occasion in the Bay of Fundy. While there are no current aquaculture operations within the Sanctuary, the potential exists. The WG recommends that the Sanctuary prohibit this activity.
- It is recommended that within five years, all current and future trap/pot fisheries shall use sinking groundline within the Sanctuary or comply with NMFS regulations (whichever is more stringent).
- It is recommended that the breaking strength of buoy weak links in trap and pot gear throughout the Sanctuary should be 600lbs.
- It is recommended that the Sanctuary develop an outreach program specific to fisherman regarding fishing regulations applicable within the Sanctuary.
- It is recommended that the Sanctuary encourage and assist fishing and conservation interests to apply for funding from NMFS, National Fish and Wildlife Federation, and other sources to explore whale-safe gear.
- It is recommended that vertical lines be targeted for intensive research and development. Vertical lines should be investigated for modification during the next Sanctuary Management Plan Review or sooner as required by NMFS.
- The Sanctuary should continue to work with NMFS, Massachusetts Division of Marine Fisheries, fishermen, and conservationists to develop low risk gear. The Sanctuary should act as a testing ground for promising new risk-reduction technologies as they become available.
- It is recommended that, within five years, the Sanctuary develop a surface buoy marking system to identify gear types and anchoring systems. Such a system could be implemented sooner if required by NMFS or the Atlantic States Marine Fisheries Commission.
- It is recommended that the Sanctuary should continue to conduct surveys to monitor marine mammals and the type and amount of fishing gear within the Sanctuary on a seasonal and

annual basis. This information should be used to identify areas of potential interaction between marine mammals and fisheries and identify industry trends.

- It is recommended that the Sanctuary develop research protocols to determine the efficacy of non-floating groundline to reduce entanglement.

ACTION ITEMS:

ACTION ITEM 1: David Wiley will contact Michael Moore for information about whale site immune response and systemic immune response due to entanglement.

ACTION ITEM 2: The issue of permitting fisherman to be credited for lost fishing time while they respond to and stand by entangled whales until the disentanglement team arrives has been discussed with the Regional Administrator and Enforcement and the idea was well received. Pat Fiorelli stated that the Good Samaritan rule cannot, as currently written, be used to credit fishermen for lost time and that it is too late to include the issue into Amendment 13. Several different avenues are being pursued to address this issue including amending the Good Samaritan Rule.

ACTION ITEM 3: The SBNMS will work with NMFS and MADMF to explore a program (through a SBNMS Research Study Program) that would allow designated whale watch vessels to approach right whales for the purpose of documenting health indices (e.g., evidence of entanglement) and the photographic identification of individual animals.

ACTION ITEM 4: Dan McKiernan will get an estimate of the number of fishermen that will be part of the gear buy-back program.

ACTION ITEM 5: Gary Ostrom will write a brief background regarding the lobster fishery in the Greater Sanctuary area.

ACTION ITEM 6: Because enforcement does not need to be part of the draft Marine Mammal Disentanglement Action Plan, the Marine Mammal Entanglement WG will develop a separate Enforcement Action Plan. Activities listed in Strategy DE-2 (Enforcement) of the previous draft Marine Mammal Disentanglement Action Plan will be written into it.

ACTION ITEM 7: Dan McKiernan, Nina Young, and Dave Gouveia will wordsmith Strategy DE-2 (Enforcement) Activity 2.1 of the previous draft Enforcement Action Plan.

ACTION ITEM 8: Nina Young will draft text outlining the considerations that must be taken during public viewing of gear removed from entangled animals.

ACTION ITEM 9: Dave Wiley will contact Andy Glynn regarding the types of anchoring systems used on tuna boats.

ACTION ITEM 10: Regina Asmutis will relay the issue of Bill Bartlett's observations of less whales, dolphins, and tuna in the SBNMS since the Deer Island outfall pipe began discharging in Spring 2002 to Anne Smrcina for the SBNMS Water Quality WG meeting on Monday, March 15, 2004.

ACTION ITEM 11: Regina Asmutis will send out the next SBNMS Ecosystem Alteration meeting date and location to the Marine Mammal Entanglement WG so that interested parties can attend.

ACTION ITEM 12: A main introduction will be written and will precede the entire group of SBNMS Action Plans. In this introduction, it will state that the SBNMS is one of the most highly regulated areas of ocean on the east coast of the U.S.

ACTION ITEM 13: Mason Weinrich will provide the missing citations for the Marine Mammal Disentanglement Action Plan.

ACTION ITEM 14: Dave Wiley will provide information for the Strategies and Implementation section of the Marine Mammal Disentanglement Action Plan.

ACTION ITEM 15: Regina Asmutis will send the revised Marine Mammal Disentanglement Action Plan to the WG to review prior to the next Marine Mammal Entanglement WG meeting on April 1, 2004. The Marine Mammal Disentanglement Action Plan will be finalized at that meeting.

ACTION ITEM 16: The Emerging Issues section of the Draft Marine Mammal Disentanglement Action Plan and the Trap/Pot Fisheries Action Plan will be moved to a separate Emerging Issues document.

ACTION ITEM 17: Diane Borggaard, Bill Bartlett, and Jim Bartlett will prepare text for the Existing Regulations section of the Trap/Pot Fisheries Action Plan.

ACTION ITEM 18: Pat Fiorelli will look at the gillnet fleet and current effort for 2003 in areas in the SBNMS to determine the economic impacts to the groundfish fleet.

ACTION ITEM 19: Mason Weinrich will plot the gillnet boats seen on fall 2003 Jeffreys Ledge surveys to assess whether boats were observed within the Western Gulf of Maine closure boundaries for the next Marine Mammal Entanglement WG meeting.

ACTION ITEM 20: Dave Wiley will ask Marjorie Rossman to extrapolate the marine mammal take data, and indicate what takes occurred while pingers were active, from her data with the gillnet fishery in the SBNMS.

Marine Mammal Entanglement Working Group Attendees (February 11, 2004)

Name	WG Seat/Affiliation	Attendance
Regina Asmutis	Chair - IWC	Present
Dave Wiley	Team Lead; SBNMS	Present
Dave Morin	Conservation; Center for Coastal Studies	Present
Sharon Young	Conservation; Humane Society of the U.S.	Present
Nina Young	Conservation; Ocean Conservancy	Present
Jennifer Kennedy	Conservation; Blue Ocean Society	Present
Stephen Welch	Commercial Fishing (Gillnet); Groundfish and Monkfish Advisor, NEFMC/Gillnet Fisherman	Present
Dan McKiernan**	State; MA Division of Marine Fisheries	Absent
Marjorie Rossman	NMFS; NEFSC	Absent
Lisa Conger	New England Aquarium Right Whale Program	Present
Gary Ostrom	Massachusetts Lobsterman's Association	Absent
Bill Bartlett	Lobsterman Area 1	Present
Dave Gouveia	NMFS Northeast Regional Office	Present
Ronnie Hunter	Captain John Boats	Present
Dave Maciono	Gillnet Fisherman	Present
John Pappalardo	Cape Cod Hook Fisherman	Absent
Edward Lyman	MA Division of Marine Fisheries**	Absent
Pat Fiorelli	Council; NEFMC	Present
Tom French	MA Division of Marine Fisheries	Present
<u>Technical Advisor(s)</u>		
John F. Kenney	NOAA	Absent
<u>Others Present</u>		
Jim Bartlett	Lobsterman	Present
Diane Borggaard	NMFS; NMFS/PR	Present
Ramie Holmquist	Whale Center of New England	Present
Laura Streicher	Whale Center of New England	Present
Mason Weinrich	Whale Center of New England	Present
Nancy Padell	Perot Systems Rapporteur	Present
Tim Feehan	Perot Systems Rapporteur	Present

**Alternate for Ed Lyman

WELCOME AND INTRODUCTIONS

Regina Asmutis, Chair, opened the meeting at 9:15 AM. The minutes from both the January 7, 2004 and February 11, 2004 Marine Mammal Entanglement WG meetings were approved by the WG.

Review of Meeting #3 Action Items:

The following action items developed at the February 11, 2004 Marine Mammal Entanglement WG meeting were discussed and their status was determined.

ACTION ITEM 1: Completed. Dave Wiley gave Marjorie Rossman's presentation on seabird, sea turtle, and seal entanglement data for the period between 1997 through 2002 collected from within the SBNMS and from within Massachusetts Bay.

ACTION ITEM 2: Completed. David Wiley contacted Gina Rappuci and Dave Gouveia checked with staff at NOAA to determine who is responsible for seabird entanglements (*e.g.*, U.S. Fish and Wildlife [F&W] or NOAA). They determined that the Migratory Bird Act provides the F&W with responsibility for seabirds, almost all of which are migratory. A Memorandum of Understanding is being developed between the F&W and NMFS where F&W will have the ultimate responsibility on the population level with NMFS providing data and other assistance.

ACTION ITEM 3: In progress: David Wiley will contact Michael Moore for information about whale site immune response and systemic immune response due to entanglement.

ACTION ITEM 4: Completed. The gillnet fishery community prepared a summary statement providing the WG with information regarding the challenges, difficulties, time, costs, etc., of the effect of major gear modifications on fishermen. Steve Welch presented the history of gillnet fisheries on Stellwagen Bank and Pat Fiorelli provided data from the past 10 years at this WG meeting.

ACTION ITEM 5: In progress. The issue of permitting fisherman to be credited for lost fishing time while they respond to and stand by entangled whales until the disentanglement team arrives has been discussed with the Regional Administrator and Enforcement and the idea was well received. Pat Fiorelli stated that the Good Samaritan rule cannot, as currently written, be used to credit fishermen for lost time and that it is too late to include the issue into Amendment 13. Several different avenues are being pursued to address this issue including amending the Good Samaritan Rule.

ACTION ITEM 6: Completed. Diane Borggaard sent her presentation to Just Moller for inclusion in the Marine Mammal Entanglement WG meeting #2 minutes.

ACTION ITEM 7: In progress. The SBNMS will work with NMFS and MADMF to explore a program (through a SBNMS Research Study Program) that would allow designated whale watch vessels to approach right whales for the purpose of documenting health indices (*e.g.*, evidence of entanglement) and the photographic identification of individual animals.

ACTION ITEM 8: In progress. Dan McKiernan will get an estimate of the number of fishermen that will be part of the gear buy-back program.

ACTION ITEM 9: In progress. Gary Ostrom will write a brief background regarding the lobster fishery in the Greater Sanctuary area.

ACTION ITEM 10: Completed. Diane Borggaard sent out a test mailing to all members of the Marine Mammal Entanglement WG. Any WG member that did not receive an email should contact her.

ACTION ITEM 11: Completed. Diane Borggaard sent the Take Reduction Team meeting information from John Kenney to Dave Wiley and it has been distributed it to all of the Marine Mammal Entanglement WG.

ACTION ITEM 12: Completed. Dave Wiley and Regina Asmutis sent the 2/10/04 Sanctuary Advisory Council meeting summary (regarding the issue of regulating fisheries within the Sanctuary) and flow chart to the Marine Mammal Entanglement WG.

ACTION ITEM 13: Completed. Dave Gouveia wrote a summary regarding the authority of the Center for Coastal Studies to perform disentanglements for the Existing Regulations section of the draft Marine Mammal Disentanglement Action Plan.

ACTION ITEM 14: In progress. Because enforcement does not need to be part of the draft Marine Mammal Disentanglement Action Plan, the Marine Mammal Entanglement WG will develop a separate Enforcement Action Plan. Activities listed in the previous draft Marine Mammal Disentanglement Action Plan will be written into it.

ACTION ITEM 15: In progress. Dan McKiernan, Nina Young, and Dave Gouveia will wordsmith Strategy DE-2 (Enforcement) Activity 2.1 of the previous draft Enforcement Action Plan.

ACTION ITEM 16: In progress. Nina Young will draft text outlining the considerations that must be taken during public viewing of gear removed from entangled animals.

ACTION ITEM 17: Completed. Dave Wiley distributed the Kozuck et al. (2004) paper to members of the team.

PRESENTATION OF 2003 DRAFT LARGE WHALE GEAR ANALYSIS

Discussion Leader: Diane Borggaard, NMFS PR

Diane Borggaard presented the WG with the Draft 2003 Large Whale Gear Analysis. In two of the entanglements reported, anchoring systems were found on entangled humpback whales from the southeast region of Stellwagen Bank. John Kenney noted that the anchoring system was similar to that found entangled on a whale near the same area of Stellwagen Bank a few years ago.

ACTION ITEM 10: Dave Wiley will contact Andy Glynn regarding the types of anchoring systems used on tuna boats.

FINAL EDITS TO DISENTANGLEMENT ACTION PLAN

Discussion Leaders: Regina Asmutis, Chair IWC and Dave Wiley, Research Coordinator, SBNMS

The draft Marine Mammal Disentanglement Action Plan presented and revised at the February 11, 2004 meeting was subsequently edited by Regina Asmutis and Dave Wiley prior to this meeting. All WG members were sent a copy in advance and the new version was edited via computer at this meeting.

Introduction

- The first sentence was changed to read, "...one of the *two main anthropogenic* threats..." In addition, "U.S. waters" was changed to "*the western North Atlantic.*"
- Regina Asmutis drafted text for a new paragraph 2: "*Because of potential impacts to marine mammals from entanglements, most fixed-gear fishermen are required to use modified fishing gear and comply with time and area closures to reduce the risk of entanglements. Additionally, federally appointed Take Reduction Teams (TRT),*

comprised of fishermen, conservationists, scientists, and government representatives were convened to specifically address this issue. The National Marine Fisheries Service (NMFS) has also worked with the New England Fishery Management Council (NEFMC), the Marine Mammal Commission, State parties, and the Sanctuary on this issue."

- In paragraph 3, "offending fishing" was deleted to reflect that anchoring gear is also found on whales.
- In paragraph 5, "(in the SBNMS???)" was deleted. The average time for the Center for Coastal Studies (CCS) to reach a whale is 2.5 hours.

Comments

Fishermen were concerned that the tone of the first sentence implied that they were the biggest threat to endangered and protected whales when, in actuality, the main causes of whale mortality are vessel strikes and entanglement. The first sentence was subsequently reworded.

Fishermen noted that, in their experience, there is less lobster gear in the SBNMS than ever before and that it is a direct result of displaced effort due to closures and fishing restrictions. Dave Wiley mentioned that it would be helpful if there were a way to document this perception.

Herring trawls have been dragging the bottom in the SBNMS.

Bill Bartlett stated that he has not observed as many whales or lobsters since the spring of 2000 when the Deer Island outfall pipe started discharging. It is his experience that dolphin, tuna, and whale sightings have decreased. He also noted that in summer the levels of chlorine pumped out of the outfall increases and the lobster activity decreases during that time.

Mason Weinrich stated that since 1998, whales have shown a steady down flow that is consistent seasonally; unfortunately there is no good systematic survey data. Mason feels his data shows low recruitment in the Gulf of Maine humpback population since the mid-1990s. While, overall, the population appears to be recovering, a mass mortality of unknown origin occurred in 2003. The Gulf of Maine had a population of 800-900 whales prior to this mass mortality (17 carcasses were documented).

Dave Wiley noted that all of the SBNMS WGs are hearing this issue of concern over water quality as a result of the Boston Sewage outfall. Dave then presented a graph depicting the mean number of humpback whales per year for the past 20 years. The data showed regular cyclic fluctuations occur, but he indicated that if the data continues downward for a few more years it might indicate a problem in the SBNMS.

It was suggested that the action plan should mention the fact that the SBNMS is one of the most highly regulated areas of ocean on the east coast of the U.S.

The issue of Navy testing was discussed in relation to the mass mortality of humpback whales in 2003. A fisherman reported an instance where two jets flew over an area in the Gulf of Maine in which he was fishing, and dropped bombs six miles away from where he was located. The Navy denies having conducted any activities in the area that would have resulted in the mass mortality.

Dave Gouveia mentioned that the Navy is undergoing a full consultation with NMFS for all operations in the Gulf of Maine and that protocols are in place for bombings. They do bomb in the Gulf of Maine and are supposed to let NMFS know, however, usually it is the morning of the exercise. NMFS is trying to get the Navy to consult with them prior to all exercises but the Navy is not forthcoming. Dave Wiley encouraged fishermen to report these exercises and to document them.

Consensus: It is recommended that fishermen report and document any Navy bombing exercises in the SBNMS.

The CCS is trying to get a faster boat to decrease the time it takes to reach an entangled whale.

ACTION ITEM 10: Regina Asmutis will relay the issue of Bill Bartlett's observations of less whales, dolphins, and tuna in the SBNMS since the Deer Island outfall pipe began discharging in Spring 2002 to Anne Smrcina for the SBNMS Water Quality WG meeting on Monday, March 15, 2004.

ACTION ITEM 11: Regina Asmutis will send out the next SBNMS Ecosystem Alteration meeting date and location to the Marine Mammal Entanglement WG so that interested parties can attend.

ACTION ITEM 12: A main introduction will be written and will precede the entire group of SBNMS Action Plans. In this introduction, it will state that the SBNMS is one of the most highly regulated areas of ocean on the east coast of the U.S.

ACTION ITEM 13: Mason Weinrich will provide the missing citations for the Marine Mammal Disentanglement Action Plan.

Existing Regulations

The following text written by Dave Gouveia was inserted into the Existing Regulations section.

- *“Founded in 1976, the CCS is a nonprofit organization whose mission revolves around research, education and disentanglement. The CCS is currently the only organization with Federal authorization to disentangle large whales. Since 1984, CCS has been developing and improving the techniques, equipment, and protocols necessary for successfully disentangling large whales. Dating back to its first disentanglement of a humpback whale in 1984, CCS has amassed an outstanding safety record without a serious human related injury despite the extreme dangers and unpredictability inherent in marine mammal disentanglement. Although the program is designed to help all species of entangled marine mammals, its highest priority is the extremely endangered remnant population of North Atlantic right whales. For this reason, the program's primary geographic focus has been the known high-use areas of the North Atlantic right whale including Stellwagen Bank, Cape Cod Bay, the Great South Channel, the Bay of Fundy, and the Florida/Georgia coastline. The CCS's work disentangling large whales is a key element of the right whale and humpback whale recovery plans to date.*

NOAA Fisheries Northeast Regional Office originally issued a letter of Authorization (LOA) to the CCS in 1989 giving the CCS a standard authorization to disentangle large whales. Based on the 1994 Marine Mammal Protection Act (MMPA) amendments, NOAA Fisheries recognized that a permit authorizing large whale disentanglement was prudent. The permit has been amended five times since 1999 with the latest revision occurring in June 2003. The amended permit authorizes the CCS to take marine mammals for the purpose of scientific research and enhancement subject to specified provisions of the MMPA, the Regulations Governing the Taking and Importing of Marine Mammals, and the Fur Seal Act of 1966. In general terms, the permit authorizes NOAA Fisheries to take all species of the Orders Cetacea, Pinnipedia, and Sirenia, to: (1) collect, preserve, label, and transport cadavers or tissue and fluid samples for physical, chemical, or biological analyses, import, and export; (2) take stranded or distressed endangered or

threatened marine mammals; and (3) salvage specimens from dead threatened or endangered marine mammals.”

Strategies and Implementation:

ACTION ITEM 14: Dave Wiley will provide information for the Strategies and Implementation section of the Marine Mammal Disentanglement Action Plan.

Strategy DE-1 Maximize the degree to which entangled animals in the Sanctuary are sighted

- The heading to this section was changed prior to the meeting.
- Activity 1.1 was amended to read, “*It is recommended that the Sanctuary secure a permanent vessel large enough to provide a regular presence within the Sanctuary. One important use of this vessel would be for the purpose of approaching whales to assess their condition (e.g., indications of entanglement). Any applicable permits or authorizations must be obtained prior to this activity.*”
- Activity 1.2 was changed to read “...(MADMF), *and other interested parties* to develop...” and “...for the purpose of assessing *possible entanglement* and individual identification...”
- Activity 1.3 remains as written.

Comments

Any whale must be able to be approached by a vessel to assess it for possible entanglement.

Strategy DE-2 Maximize the degree to which entangled animals in the Sanctuary are properly reported

- The heading to this section was changed prior to the meeting.
- Activity 2.1 and Activity 3.10 were combined to read: “*It is recommended that the Sanctuary increase educational efforts and partnerships to ensure that all mariners are aware of the need to report sightings of entangled animals and how such sightings should be reported. Possible efforts could include distribution of laminated placards stating the rules for reporting entangled whales to post on vessels and at the piers, and posting this information on the Sanctuary website and in the Sanctuary newsletter.*”

Strategy DE-3 Maximize stand-by of entangled animals

- The heading to this section was changed prior to the meeting.
- Activities 3.1 and 3.5 remain as written.
- Activity 3.2 was changed to read “...the Sanctuary *improve or establish* relationships...” and “other groups, *such as the Maine Marine Patrol*, that could...”
- For Activity 3.3, the word “all” was deleted.
- Activity 3.4 was changed to read, “...to provide *training and* informational materials...”
- Activity 3.6 added the text, “...Sanctuary, *with CCS and NMFS*, support...”
- The first sentence of Activity 3.7 was revised to read, “It is recommended that the Sanctuary encourage NMFS and NEFMC to develop ways to credit *federally permitted vessels under the days-at-sea program* for the *actual fishing* time they *have lost* in order to stand-by entangled whales.”
- Activity 3.8 was deleted.
- Activity 3.9 was renumbered as Activity 3.8.

- Activity 3.10 was moved to Activity 2.1.

Comments

Regarding Activity 3.7, Dave Gouveia stated that Eric Anderson, the Chair of the NMFS Protected Resources Division, will bring up the issue of crediting fishermen who stand-by entangled animals for the actual time they have lost fishing under the days-at-sea program at the next Protected Resources meeting and get it moving through the proper channels.

Strategy DE-4 Research

- Activity 4.1 was revised to read, “It is recommended that the Sanctuary *assist NMFS in allowing* interested parties to view gear removed from whales *entangled or disentangled in the proximity of the Sanctuary*. This would also allow interested parties to provide comments for NMFS records regarding the *possible type and origin of the gear* viewed. *This would facilitate public participation by individuals knowledgeable about commercial fishing gear without compromising ongoing investigations as to the type or origin of the gear or the potential evidentiary nature of the gear.*”
- For Activity 4.2, the word “should” was deleted and the text was changed to read, “...marking system *in order to identify the part and type of gear in which whales are getting entangled.*”
- Activity 4.3 was revised by deleting the word “should” and adding “*for the purpose of surface identification*” to the end of the sentence.
- Activity 4.4 was added and reads as follows: “*It is recommended that the Sanctuary partner with CCS, NMFS, and other parties to support research and development of improved disentanglement technology.*”

Comments

Mason Weinrich expressed concern that the WG is creating an action plan without any research to increase disentanglement success. He stressed that there is a need for partnerships for research and development in this action plan. As a result, Activity 4.4 was created.

Dave Gouveia expressed concern at the idea of holding an annual meeting to view gear disentangled from marine mammals. He stated that the gear is available to be viewed at any time by any interested parties.

It was noted that recreational fishermen are not as careful with their gear as commercial fishermen.

Consensus: In regard to gear marking, it was recommended that whatever marking system is developed, it is essential that the Sanctuary be able to get the most information it can from the marking system (e.g., tracing to a fishery).

Strategy DE-5 Emerging Issues

The following activities were developed by the WG and added to this section.

Consensus: The WG agreed to put all of the Emerging Issues for each Action Plan into a separate document.

- Activity 5.1 was added. *“Anchoring systems have been implicated in at least three humpback whale entanglements. These whales were all sighted within the boundaries of the Sanctuary. The Working Group (WG) recommends that the Sanctuary investigate where these systems are being utilized and the WG recommends the Sanctuary require vessel anchoring systems be brought home when the vessel returns to port.”*
- Activity 5.2 was added. *“Entanglement in aquaculture gear has been documented in at least one occasion in the Bay of Fundy. While there are no current aquaculture operations within the Sanctuary, the potential exists. The WG recommends that the Sanctuary prohibit this activity.”*

Comments

Because some fishermen in the SBNMS leave their anchor marked with a poly ball at a good fishing area for days, and because this can pose an entanglement risk, it was recommended that the Sanctuary require that anchoring systems be removed by fishermen when they are finished fishing for the day.

Sharon Young stated that while there are no current aquaculture operations in the Sanctuary, the potential exists. Entanglement in aquaculture has been documented on at least one occasion in the Bay of Fundy.

Consensus: The WG recommends that the Sanctuary ban aquaculture operations in the SBNMS due to entanglement risk.

ACTION ITEM 15: Regina Asmutis will send the revised Marine Mammal Disentanglement Action Plan to the WG to review prior to the next Marine Mammal Entanglement WG meeting on April 1, 2004. The Marine Mammal Disentanglement Action Plan will be finalized at that meeting.

ACTION ITEM 16: The Emerging Issues section of the Draft Marine Mammal Disentanglement Action Plan and the Trap/Pot Fisheries Action Plan will be moved to a separate Emerging Issues document.

BEGIN EDITING DRAFT TRAP/POT FISHERIES ACTION PLAN

Discussion Leaders: David Wiley, Research Coordinator, SBNMS and Regina Asmutis, Chair, IWC

Some sections of the draft Trap/Pot Fisheries Action Plan were drafted at the February 11, 2004 meeting. After the meeting, additional sections of the draft Trap/Pot Fisheries Action Plan were drafted by Regina Asmutis and Dave Wiley. All WG members were sent a new version in advance of this meeting. This new version was edited via computer at this meeting.

Introduction

- In paragraph 1, the third and fourth sentences were edited to read, “...However, trap-pot fisheries such as American Lobster, *whelk*, hagfish, and jonah crab are directed fisheries *included in the Federal large whale take reduction team process*. *Some of these* trap/pot fisheries co-occur with large numbers of baleen whales *in the Sanctuary*, creating an identified risk of entanglement (Wiley et al. 2003).”
- In paragraph 1, the last sentence was changed to read, “...animals *may have become* entangled...”

- In paragraph 2, the following text was added as the second sentence, “*For entanglements in the U.S. and Canada between 1993-2002 in which the source could be identified, 71% (10/14) of right whales and 41% (9/22) of humpback whales were attributed to various pot gears (Kozuck, et al. 2004).*” This data was calculated based on data from Table 1b of the Kozuck et al. (2004) paper.
- In paragraph 2, the references to potential biological removal (PBR) were deleted from the third sentence. It was determined that PBR would have to be defined and explained in depth and that it would be confusing to the public. The sentence was therefore edited to state, “Category I fisheries are those which *have frequent* mortality or serious injury *of one or more species* of marine mammals.”
- In paragraph 3, sentence 2 was revised to delete references to PBR and now reads, “Category II fisheries are those, which *cause occasional* mortality or serious injury to marine mammals.”
- In paragraph 4, the second sentence was revised to read, “...Atlantic Large Whale Take Reduction Team (TRT), which *emphasizes* the risk...”
- In paragraph 4, the last sentence was deleted.

Comments

Gary Ostrom was absent and could not provide information on the history of lobster fishing around the Stellwagen Bank area.

The fishermen expressed concern that, because the public does not understand the issue of PBR, the public will assume 50% of the whales are entangled because of pot fishermen. A discussion ensued as to whether to define PBR in this action plan or delete references to PBR and reword the text. The WG decided to delete the term PBR and reword the text.

The idea of citing some real data indicating the percentage of entanglements per gear type was discussed. Table 1b from the Kozuck et al. (2004) report was used to calculate the number of whales entangled in pot gears in the U.S. and Canada between 1993 and 2002. This information was added to paragraph 2 of the Introduction.

A fisherman questioned how the gear was determined to be pot gear in the Kozuck et al. (2004) report. Because the WG has stated repeatedly in these meetings that it is very hard to determine the gear type entangled on whales, the fisherman questioned the need for paragraph 2.

A determination of the risk of entanglement by gear type is needed because the data thus far is anecdotal. Data is needed to determine the scope of the problem in the SBNMS.

Existing Regulations

- The subheading, Closure Western Gulf of Maine was deleted.
- The subheading, “*Stellwagen/Jeffreys*” was added.

ACTION ITEM 17: Diane Borggaard, Bill Bartlett, and Jim Bartlett will prepare text for the Existing Regulations section of the Trap/Pot Fisheries Action Plan.

Strategies and Implementation

- The text under this heading was changed to read, “...and organizations *to address and investigate the entanglement risk posed by trap and pot fisheries.*”

Strategy TP-1: Gear Modification

- Sentence 1 was revised to read, "...reduce *serious injury or mortality of large whales entangled by* trap and pot fisheries..."

Activities:

- Under Activity 1.1 Rationale, the first sentence was edited to read, "Groundlines are lines connecting traps *or pots* on the seabed." The word "lobster" was deleted to make the sentence refer to all traps and pots. In the second sentence, "18 feet" was deleted and "*X feet (Dan's cite)*" was inserted so that the number from Dan McKiernan's paper (cite) could be used.
- Activity 1.2 was moved to Research as Activity 3.5.
- Activity 1.3 was moved to Research as Activity 3.1.
- Activity 1.4 was moved to Research as Activity 3.3.
- Activity 1.5 was renumbered as Activity 1.2.

Comments

The WG determined that the introductory paragraph to the gear modification paragraph refers to large whales rather than marine mammals.

Mason Weinrich suggested that the Sanctuary invest resources to develop gear marking of groundline.

A WG member commented that research is needed to determine if sinking line eliminates or reduces entanglements.

Strategy TP-2 Outreach/Education

- Activity 2.1 was changed to read, "...regulations *applicable* within the Sanctuary."
- Activity 2.2 was edited to read, "...encourage *and assist* fishing." Under Rationale, the first sentence was revised to read, "...knowledgeable *about* their fishery, they are most likely..."

Strategy TP-3 Research

In the introductory paragraph to this section, the fourth sentence was changed to read, "*Gear modifications* that appear to be functional in this *type of* controlled..." The last sentence of the paragraph was revised to read, "could then be *reported to NMFS and the TRT for possible* use outside Sanctuary boundaries."

Activities:

- The new Activity 3.1 is the old Activity 1.3. The old Activity 3.1 was deleted.
- Activity 3.2 remained the same.
- The new Activity 3.3 is the old Activity 1.4. This activity was revised to read, "...NMFS *or the Atlantic States Marine Fisheries Commission.*"
- The old Activity 3.3 was renumbered as Activity 3.4. The first sentence of this activity was changed to read, "...monitor *marine mammals and* the type..." The second sentence

deleted the word “commercial” and was edited to read “...*marine mammals and fisheries...*”

- Activity 3.5 was the old Activity 1.2. The activity was reworded to read, “*Develop research protocols to determine the efficacy of non-floating groundline to reduce entanglement.*” The Rationale was changed to read, “...necessary to *determine if these lines are found* on entangled whales. *For example* a marking system...”

Strategy TP-4 Emerging Issues

The following text was developed by the WG and it was decided to put all of the Emerging Issues for each action plan into a separate document.

- While there are no recent data (2001-2003) regarding turtle and seal entanglements in trap/pot fisheries in the Sanctuary, there is evidence that endangered leatherback turtles do become entangled in endlines in coastal Massachusetts’s waters. Additionally, leatherback, loggerhead, green, hawksbill, and Kemp’s ridley sea turtles have all been documented entangled in buoy lines of pots or traps along other east coast US states (K. Dwyer, pers. comm.). As such, the WG agreed that this is not an issue at this time but should be reconsidered in future management plans.

Comments

Consensus: During a discussion of the presence of sea turtles and Pinnipeds in the SBNMS, Dave Wiley stated there is no indication of sea turtle entanglements in the SBNMS; sea turtles are rarely observed in the Sanctuary. The WG determined that this was not an issue at this time.

BACKGROUND DISCUSSION – GILLNETTING

Discussion Leaders: Steve Welch, NEFMC, Gillnet Fisherman and Pat Fiorelli, NEFMC

Steve Welch gave a presentation of the numerous regulations that have impacted the gillnet fishery over the past 25 years. The result of these regulations and closures is that the number of gillnet fishermen has decreased over the years. Steve stressed that it is important to have access to Stellwagen Bank because the fish stocks are coming back.

c. Amendment 5 1994 <ul style="list-style-type: none"> • Closed Areas 1 and 2 • 6-inch mesh size adopted • Displaced boats from offshore to inshore • Implemented Days-at-Sea • 88 fleet days • Individual days (compute average of 2 highest years and divide by 2) • Spring Spawning Closures in Blocks 124 and 125 • One 20-day Spawning Block between March 1 and May 31 • Established a Mandatory Reporting System for landings and effort data • Established minimum fish sizes appropriate to the increased mesh size • Expanded the size of the Area II closure 	c. Amendment 7 1996 <ul style="list-style-type: none"> • At least 14 Blocks to be 7 days in length • 3 Blocks (21 days) need to be called out of the fishery during the period from June 1 through September 30 • Net restrictions (80 groundfish nets) • 160 flat fish nets (target Yellow Tail Flounder, Black Back, Dabs, Grey Sole, and Monkfish) • Trip limit set for Cod (1000 lbs.) • Large area closure for harbor porpoise • 50% reduction in Days-at-Sea is to be achieved within a 2-year period, rather than over 7 years as stipulated in Amendment 5
1999 <ul style="list-style-type: none"> • February 1 — Framework 26; additional month-block (30 x 30 minutes) closures added for February and April • May 1 — Framework 27; target TAC (1300 mt with trigger provision); Gulf of Maine Cod Trip Limit (200 lbs/day); minimum square mesh increased to 6.5" (165 mm) • May 28 — Framework trigger pulled; Gulf of Maine Cod Trip Limit (30 lbs/day) • August 3 — Interim Rule; Gulf of Maine Cod Trip Limit (100 lbs/day) 	2000 <ul style="list-style-type: none"> • January 5 — Framework 31; Gulf of Maine Cod Trip Limit (400 lbs/day-4000 maximum trip); additional month-block (30 x 30 minutes); closures implemented for February • May 1 — Framework 33; target TAC (1900 mt with trigger provision); continuation of most Framework 27 and 31 measures; year-round closure of Western Gulf of Maine Area extended until April 2002
Consequences <ul style="list-style-type: none"> • Spring Haddock fishery ended • Fall Pollack fishery ended • The closure of additional offshore areas (Catches Ledge and Fippines Ledge) displaced a large number of gill net fleet 	Judge's Ruling (Day Boat Category) <ul style="list-style-type: none"> • 50 ground fish nets • 100 flat fish nets • Mesh size increased fro 6 to 6.5" • Cost of replacement gear ranged from \$9,000 to \$40,000 for gill net vessels • No ground fish nets allowed in the gulf of Maine; regulated mesh area for March through June • Four month closure for Blocks 124 and 125
Amendment 13 <ul style="list-style-type: none"> • Days-at-Sea will be reduced by an additional 40% • Yellow Tail Flounder trip limits will range from 250-750 lbs 	

Pat Fiorelli presented maps of the SBNMS showing the various yearly closures and discussed several regulations.

<p>1994 Amendment 5 Implemented</p> <ul style="list-style-type: none"> • Purpose: To reduce fishing mortality (effort) by 50% over 5-7 years and to reduce by-catch of harbor porpoise in the Gulf of Maine sink gill net fishery. • Gillnet vessels exempt from fishing effort reductions (days-at-sea) until harbor porpoise measures evaluated. • Gillnet vessels subject to 30-day time/area closures in the northeast, mid-coast (vessels in pinger experiment allowed to fish) and Massachusetts Bay areas.
<p>1996 Amendment 7 Implemented</p> <ul style="list-style-type: none"> • Purpose: To reduce fishing mortality by 80% and to reduce the harbor porpoise bycatch to PBR by April 1, 1997. • Gillnet vessels using 7-inch mesh or more 155 days/1996 – 120 days/1997. • Any vessel 30 ft. and under may fish unlimited days, but subject to a 300 lb. possession limit (cod, haddock, yellowtail flounder). • All vessels must take a 20-day block of time off from the groundfish fishery during the March-May spawning period. • Net caps (1997) = 80 groundfish/160 flatfish (combination OK but 160 net maximum) • No net caps for trip boats, but must bring nets home at the end of each trip. • Vessels must declare into the trip pr day-boat category annually.
<p>April 1997 Framework Adjustment 20 Implemented</p> <ul style="list-style-type: none"> • Individual or fleet vessels have Days-at-Sea counted as hours away from the dock except that each trip will count a minimum of 15 hours (maximum of 1409 trips for fleet Days-at-Sea vessels); trips less than 3 hours will be counted only as time away from port. • 120 Days-at-Sea must be taken out in 7-day blocks and vessels must take 21 of these required days out during June-September.

Comments

A fisherman commented that they have had to take good gear and cut it, dismantle it, put weak links in it etc. three times. The TRT then places restrictions on fishermen making it almost impossible to fish. He mentioned that he has neglected maintenance on his boat to afford to fish legal gear and that others have reduced the amount of their insurance, decreased crew, or have gone bankrupt. He stated that to stay as a gillnet fisherman you need to buy two boats each with different gear so you can have one fishing and one sitting because the seasonal closures have you changing gear for each season and having two sets of gear is impractical.

ACTION ITEM 18: Pat Fiorelli will look at the gillnet fleet and current effort for 2003 in areas in the SBNMS to determine the economic impacts to the groundfish fleet.

NMFS SUMMARY OF GILLNET FISHERY

Discussion Leader: Dave Wiley, Research Coordinator, SBNMS gave Marjorie Rossman's (NEFSC) presentation due to her absence.

Highlights from the NMFS Summary of Gillnet Fishery presentation included:

- Sampling data from the NEFMC Fisheries Sampling Program.
- Commercial gillnet trips from the New England Region vessel trip reports (VTRs).
- Incidental takes in and around the SBNMS observed by the NEFSC Fisheries Sampling Program.
- Harbor Seals and other unidentified seals are most frequently caught in gillnets, followed by Harbor Porpoise and White-sided Dolphins.
- The spatial distribution of "takes" inside the North/Northeast portion of the SBNMS reflects patterns in gillnet fishing effort.

- Summary tables demonstrating frequency of incidental takes by year, month, and species showed a lot of inter-annual and intra-annual variability (17 marine mammals in 2000, 26 in 2001, and 7 in 2002).
- Data overview of seabirds incidentally captured in gillnets across the Northeast and Mid-Atlantic regions in 2001 and 2002.
- Temporal distribution and frequency of seabirds incidentally caught in gillnet gear by year, month, and species (81 birds in 2001 and 43 birds in 2002).
- Incidental seabird takes in gillnet gear in and around the SBNMS in 2001 and 2002 by species. Incidental capture of seabirds in gillnet gear is not a frequent occurrence within the region (3 in 2001 and 3 in 2002).
- Temporal distribution and frequency of seabirds incidentally caught in gillnet gear by year, month, and species in Statistical Area 514 only.
- There were no sea turtle takes observed in gillnet gear inside the SBNMS during 2000-2002.
- Overview of spatial distribution and frequency of gillnet trips inside the SBNMS during 2000-2002.
- Frequencies of unique gillnet vessels and trips inside the SBNMS by year and port. Ports with the largest fleet of vessels that fished inside the SBNMS, in order of frequency, are Gloucester, Scituate, Portsmouth, Marblehead, Rye, Beverly, and Seabrook.
- In the winter months when the animals are in the region of the SBNMS, effort has declined due to Days-at-Sea restrictions.
- In April and May 2002, the SBNMS was closed due to multi-species Fishery Management Plan rolling closures. When many cetaceans are migrating into the area, risk of entanglement is reduced in the region during this time period.
- During July and August of 2002, the SBNMS region was open to fishing and effort was highest. This time period poses the highest risk of entanglement to marine mammals that hang around this region during the summer months.
- In October to December 2004, excluding the Northern region, the remainder of the SBNMS region was closed during October and November due to the multi-species Fishery Management Plan rolling closures. Effort was heavily concentrated in the open region during October and November posing entanglement risk to local and migrating cetaceans.
- No marine mammal or sea turtle takes were observed in bottom trawl gear inside the SBNMS during 2000-2002.

Comments

Steve Welch stated that it is very important to set the fishing gear properly to avoid seabird entanglements. A fisherman must ensure that there is no fish-cleaning going on at the same time as setting the nets to prevent a discharge of fish remains into the water where the nets are being set.

With regards to VTR reports showing fishermen using the closed areas, it was stated that a certain percentage of fishermen fill out inaccurate VTRs so that it appears that they have fished in a closed area in the SBNMS. This is because they believe that if they report where they were successfully fishing, the NMFS will close that area. Since the closed area is already closed, and they are mandated to report a location, they report in the closed area. In addition, because VTRs cannot be used in legal action against fishermen, they know they will not suffer any consequences from reporting that they fished a closed area.

Mason Weinrich reported that he has seen fishing activity in the Northern Central/Western Gulf of Maine in October, November, and December.

ACTION ITEM 19: Mason Weinrich will plot the gillnet boats seen on fall 2003 Jeffreys Ledge surveys to assess whether boats were observed within the Western Gulf of Maine closure boundaries for the next Marine Mammal Entanglement WG meeting.

ACTION ITEM 20: Dave Wiley will ask Marjorie Rossman to extrapolate the marine mammal take data, and indicate what takes occurred while pingers were active, from her data with the gillnet fishery in the SBNMS.

FISHING WITH WEAK LINKS IN THE SBNMS

Discussion Leader: Dave Wiley, Research Coordinator, SBNMS

Dave Wiley gave a presentation on fishing with weak links on gillnets in and around the SBNMS. Because knots present a problem, several experimental knotless line configurations were tested by Bob MacKinnon, Scott MacKinnon, Ron Smolowitz, and Dave Wiley. Dave stated that in all cases, the wet test breaking strength is probably higher than the dry test breaking strength.

- Fishermen's Knotless Line Fastener: This configuration was used for joining two lines together without the use of a knot. The device consisted of a 2-ft long tube of woven "Japanese Finger" material. The bitter end of each line to be joined was placed into opposite ends of the tube. Six hot rings were then used to attach the tube to the lines and to link them together. The dry test breaking strength was 800-900 lbs. There were no operational failures.
- Fishermen's Weak Link for Gillnet Float Line: The outer tube consisted of a 2-ft section of "Japanese Finger" material. The float line was cut and the ends inserted into the tube until they met at the center. Seizing twine was then used to make a series of wraps (five form either side) that rejoined the float line. The dry test breaking strength was approximately 300 lbs. There were no operational failures.
- Fishermen's Weak Link for Surface Buoys: The device was designed to allow the surface buoy to break away from the buoy line if a right whale encountered it. The dry test breaking strength was approximately 150 lbs. There were no operational failures.

NEXT STEPS

1. Meeting Schedule and Location

The WG members agreed to meet again on Thursday April 1, 2004 at 9AM in Scituate, Massachusetts.

2. Proposed Agenda Outline for Meeting

Finish Marine Mammal Disentanglement Action Plan
Finalize the Trap Fisheries Action Plan
Start the Gill Net Action Plan
Start the Enforcement Action Plan

Gerry E. Studds Stellwagen Bank National Marine Sanctuary
Management Plan Review

Marine Mammal Entanglement Working Group – Draft Agenda

Date: 10 March 2004
Location: SBNMS, Gloucester, MA

TIME	TOPICS AND OBJECTIVES
9:00-9:15	Welcome, Adoption of Agenda and Minutes from last two meetings. Discussion Leader: Regina Asmutis
9:15-9:30	Review: Action Items Discussion Leader: Regina Asmutis
09:30-10:30	Final Edits to Disentanglement Action Plan Discussion Leader: Regina Asmutis and Dave Wiley
10:30-10:45	Break
10:45-11:45	Begin editing Draft Trap Fisheries Action plan Discussion Leader: Regina Asmutis and Dave Wiley
11:45-12:30	Background Discussion - Gillnetting Discussion Leader: Steve Welch
12:30-1:00	NMFS Summary of Gillnet Fishery and Weak Link Information Discussion Leader: David Wiley
1:00-1:30	• LUNCH
1:30-3:00	Develop Action Plan for Gillnetting Discussion Leader: Regina Asmutis and Dave Wiley
3:00-3:15	•Break
3:15-4:00	Continue working on Gillnet Action Plan (If time allows, move on to Enforcement Action Plan)
4:00-4:30	Next Steps <ul style="list-style-type: none"> - Meeting Schedule - Agenda for Meeting #5 Working Group Recommendations for Enforcement Action Plan Discussion Leader: Regina Asmutis